FORM PTO-1449	101.6	Atty. Docket No.:	Serial No.:
Page 1 of 1	MAY 1 3 2004 3	H00026922 (1100.1187101)	10/612,664
	THE STATE OF THE S	Applicant: Jay Schw	richtenberg et al.
LIST OF PATENTS AND PU	BLICATIONS FOR		
APPLICANT'S INFO	RMATION	Filing Date:	Group Art:
		July 2, 2003	unknown 7859

## U.S. PATENT DOCUMENTS

Examiner Initial	Document No.	Date	Name	·
36	3,877,075	04/1975	Watanabe	
26	<del>2002/020773-A1</del>	02/2002	Fuji Hiroshi et al.	
	2002/0020773 A1			

## FOREIGN PATENT DOCUMENTS

Examiner Initial	Document No.	Date	Country	Translation
				Yes No
20	02/10713 A	WO	PCT	

## OTHER ART (Including Author, Title, Date, Pertinent Pages, etc.)

			•		-
· '					
EXAMINER:	G. Bradley	Bennett	DATE CONSIDERED:	22 NOV 200	14

EXAMINER: Initial if citation considered, whether or not citation is in conformance with MPEP 609; draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

Page 1 of 8

Atty. Docket No.: H26922 (1100.1187101)

Serial No.: 10/612,664

Applicant: Jay Schwichtenberg et al.

LIST OF PATENTS AND PUBLICATIONS FOR APPLICANT'S INFORMATION DISCLOSURE STATEMENT

Filing Date: Group Art: unknown 2859 July 2, 2003

### U.S. PATENT DOCUMENTS

C THE	DEWARD	<u> </u>	U.S.	PATENT DOCUMEN	N12		<del></del>
Exam Init		Document No.	Date	Name	Class	Sub Class	Filing Date If Appropriate
200		2,403,692	07/1946	Tibbetts	i	1	
1		2,975,307	03/1961	Shroeder et al			
		3,304,446	02/1969	Martinek et al			
		3,381,623	05/1968	Elliot			
_		3,414,010	12/1968	H.T. Sparrow		<u> </u>	
		3,641,373	02/1972	Elkuch			•
		3,726,296	04/1973	Freidland et al.			
<del></del>		3,769,531	10/1973	Elkuch			
		<sub>。</sub> 3,803,424	04/1974	Smiley et al.			
		3,827,457	08/1974	Vutz et al.			
	<b></b>	3,947,644	03/1976	Uchikawa			
		3,976,862	08/1976	Curbelo			
		4,115,036	09/1978	Paterson			•
		4,140,936	02/1979	Bullock			
-		4,197,737	04/1980	Pittman			
		4,418,886	12/1983	Holzer			
	-	4,453,169	06/1984	Martner			
-		4,478,076	10/23/1984	Bohrer			
		4,478,077	10/23/1984	Boher			
-	<del></del>	4,498,112	02/05/1985	Georgens et al.			
		4,498,850	02/1985	Perlov et al.	<del></del>	<del>                                     </del>	
-		4,501,144	02/26/1985	Higashi et al.	-+	+	
+	-	4,539,575	09/1985	Nilsson		1	
		4,539,614	09/03/1985	Thompson		+	
303			<u> </u>	L			

Page 2 of 8



Atty. Docket No.: H26922 (1100.1187101)

Serial No.: 10/612,664

Applicant: Jay Schwichtenberg et al.

## LIST OF PATENTS AND PUBLICATIONS FOR APPLICANT'S INFORMATION DISCLOSURE STATEMENT

Filing Date: July 2, 2003 Group Art: unknown 2859

Examiner Initial	Document No.	Date	Name	Class	Sub Class	Filing Date  If Appropriate
26	4,576,050	03/1986	Lambert	,	ì	
1	4,651,564	03/24/1987	Johnson et al.			
1	4,654,546	03/1987	Kirjavainen			
	4,673,995	06/1987	Spiegelstein			
	4,683,159	07/28/1987	Bohrer et al.			
	4,722,360	02/1988	Odajima et al			
	4,745,279	05/1988	Karkar et al.			
-	4,756,508	07/1988	Giachino et al.			
	4,821,999	04/1989	Ohtaka			
	4,874,949	10/1989	Harris et al.			
	4,898,200	02/1990	Odajima et al	1-1		
	4,911,616	03/1990	Laumann, Jr.			
	4,938,742	07/1990	Smits		_	
	4,939,405	07/1990	Okuyama et al.			
	5,065,978	11/1991	Albarda et al.			
	5,069,419	12/1991	Jerman	11-		
	5,078,581	01/1992	Blum et al.	+ + -	<del>  </del>	
	5,085,562	02/1992	van Lintel			
	5,096,388	03/1992	Weinberg			
	5,129,794	07/1992	Beatty	+-		
	5,148,074	09/1992	Fujita et al.		<del>  </del>	
	5,171,132	12/1992	Miyazaki et al.			
	5,176,358	01/1993	Bonne et al.	+		
	5,180,288	01/1993	Richter et al.			
	5,185,641	02/1993	Igushi et al.	-	<del>                                     </del>	
202	5,192,197	03/1993	Culp		<del>                                     </del>	

Page 3 of 8



Atty. Docket No.: H26922 (1100.1187101) Serial No.: 10/612,664

Applicant: Jay Schwichtenberg et al.

LIST OF PATENTS AND PUBLICATIONS FOR APPLICANT'S INFORMATION DISCLOSURE STATEMENT

Filing Date: Group Art:

July 2, 2003 unknown 1859

Examiner Initial	Document No.	Date	Name	Class	Sub Class	Filing Date If Appropriate
Sto	5,206,557	04/1993	Bobbio		1 -	
	5,219,278	06/1993	van Lintel			
1	5,224,843	07/1993	van Lintel			
<del>-   -  </del>	5,368,704	11/1994	Madou et al.			
	5,441,597	08/1995	Bonne et al.			
	5,452,878	09/1995	Gravesen et al.			
	5,499,909	03/1996	Yamada et al.			
	5,528,045	06/1996	Hoffman et al.			
	5,537,376	07/1996	Iluma			
	5,541,465	07/1996	Higuchi et al.			
	5,552,654	09/1996	Konno et al.			
	5,571,401	11/1996	Lewis et al.			<del></del>
	5,601,080	02/1997	Oppenheimer			
	5,633,724	05/1997	King et al.			
	5,642,015	06/1997	Whitehead et al.			
	5,683,159	11/1997	Johnson			
	5,716,852	02/1998	Bonne et al.			
	5,725,363	03/1998	Bustgens et al.			
	5,726,751	03/10/1998	Altendorf et al.			
	5,757,476	05/1998	Nakomoto et al.			
	5,759,014	06/1998	Van Lintel			<del></del>
	5,759,015	06/1998	Van Lintel et al.			
	5,793,485	08/11/1998	Gourley		1-1-	
	5,799,030	08/25/1998	Brenner			
<del></del>	5,822,170	10/13/1998	Cabuz et al.		1-1-	<del>                                     </del>
200	5,836,750	11/17/1998	Cabuz		1-1-	

LIST OF PATENTS AND PUBLICATIONS FOR APPLICANT'S INFORMATION

DISCLOSURE STATEMENT

Page 4 of 8

SEP	0	4	2003	102 32:24	
,				- 9	

OIPE

RACEINED

Atty. Docket No.: H26922

(1100.1187101)

Serial No.: 10/612,664

Applicant: Jay Schwichtenberg et al.

Filing Date:
July 2, 2003

Group Art:

unknown-1859

Examiner Initial	Document No.	Date	Name	Class	Sub Class	Filing Date If Appropriate
20	5,863,502	01/26/1999	Southgate et al.		,	
7	5,863,708	01/1999	Zanzucchi et al.			
++-	5,880,474	03/1999	Norton et al.			
1-1-	5,893,722	04/13/1999	Hibbs-Brenner et al.			
1	5,897,097	04/1999	Biegelsen et al.			
++-	5,901,939	05/1999	Cabuz et al.			
1-	5,911,872	06/1999	Lewis et al.			
	5,922,210	07/13/1999	Brody et al.	1		
	5,932,100	08/03/1999	Yager et al.			
	5,948,684	11/07/1999	Weigl et al.			
+	5,971,158	10/26/1999	Yager et al.			
<del></del>	5,972,710	10/26/1999	Weigl et al.	1		
<del>-     -  </del>	5,974,867	11/02/1999	Forster et al.			
++-	6,007,775	12/28/1999	Yager			
	6,014,358	01/11/2000	Kabasawa	. 1		
<del>-   -  </del>	6,082,185	07/04/2000	Saaski	1 1		
	6,097,485	08/01/2000	Lievan			
+   -	6,106,245	08/2000	Cabuz			
	6,139,800	10/2000	Chandler			
	6,179,586	01/2001	Herb et al.			
+ +	6,184,607	02/2001	Cabuz et al.	+ +		
	6,215,221	04/2001	Cabuz et al.			
<del> </del>	6,249,341	06/2001	Basiji et al.	1 1		
<b>V</b>	6,288,472	09/2001	Cabuz et al.	+ +	1	

O-1449 SEP 0 4 2003

LIST OF PATENTS AND PUBLICATIONS FOR APPLICANT'S INFORMATION

**DISCLOSURE STATEMENT** 

Page 5 of 8

Atty. Docket No.: H26922 (1100.1187101)

Serial No.: 10/612,664

Applicant: Jay Schwichtenberg et al.

Filing Date: July 2, 2003

Group Art:

Exam Initi	Document No.	Date	Country	Translation Yes No
200	DE 19617852	01/1993	DE	Abstract
1	 EP 0744821 A2	11/27/1996	EP	
	EP 0744821 A3	12/04/1996	EP	
	EP 1001326	05/27/1999	EP	
	JP 02-86258	10/1995	JР	Abstract
	JP 05-219760	08/1993	JР	Abstract
	SU 744877	06/1980	SU	Abstract
	WO 01/09598	07/28/2000	PCT	
V	WO 95/27199	03/28/1995	PCT	
26	WO 99/60397	04/29/1999	PCT	

# OTHER ART (Including Author, Title, Date, Pertinent Pages, Etc.

26	"Applying Microfluidic Chemical Analytical Systems To Imperfect Samples", P. Yager et al., Micro Total Analysis Systems 98, D. Harrison & A. van den Berg (ed.), Kluwer Academic Publishers, Dordrecht, 207-212, 1998.
1	"Design Of Microfluidic Sample Preconditioning Systems For Detection Of Biological Agents In Environmental Samples", Yager, M. et al., SPIE Proceedings, 3515, 252-259, 1998.
	"Development Of A Flow Cytometry Based Miniature Chemical Fluid Analysis System Using Fluorescent Microbeads", M. Huang. et al., SPIE Biomedical Optics, BIOS 97, conference proceedings, 1997.
	"Differential Blood Cell Counts Obtained Using A Microchannel Based Flow Cytometer", E. Altendorf et al., Solid State Sensors & Actuators, Vol. 1, 531, 1997.
	"Diffusion-Based Optical Chemical Detection In Silicon Flow Structures", B. Weigl et al., Analytical Methods & Instrumentation, µTTAS 96 special edition, 1996.
	"Fluorescence And Absorbance Analyte Sensing In Whole Blood And Plasma Based On Diffusion Separation In Silicon-Microfabricated Flow Structures (T-Sensors <sup>TM</sup> )", B. Weigl, et al., Biomedical Optics, Vol. 6, No. 1, July 1997.
1	"Implementation Of Novel Optical Detection Methods For Clinically Important Blood Analytes Using Microfabricated Flow Structures (T-Sensors <sup>TM</sup> )", E. Altendorf & B. Weigl, MicroTAS 98, Banff, Canada, April 1998.
205	"Integration Of Microelectrodes With Etched Microchannels For In-Stream Electrochemical Analysis", R.Darling et al., MicroTAS 98, Banff, Canada, April 1998.

Page 6 of 8

SEP 0 4 2003 (1100.1187101)

Serial No.: 10/612,664

, |-

Applicant: Jay Schwichtenberg et al.

## LIST OF PATENTS AND PUBLICATIONS FOR APPLICANT'S INFORMATION DISCLOSURE STATEMENT

Filing Date: Group Art:

July 2, 2003 -unknown 2859

26	"Microfabrication Technology For Research And Diagnostics, Silicon Microchannel Optical Flow Cytometry", E. Altendorf et al., SPIE Proceedings, Biomedical Optics 96, January 1996.
	"Microfluidic Approaches To Immunoassays", A. Hatch et al., SPIE conference on Micromachining and Microfabrication Symposium at Santa Clara, CA, 20-22 Sept. 1999.
	"Microfluidic Diffusion Based Electrochemical Detection Using Microfabricated Flow Structures (T-Sensors <sup>TM</sup> )", B. Weigl, Analytical Chemistry, submitted 1999.
	"Microfluidic Diffusion-Based Separation And Detection", B. Weigl & P. Yager, Science, Vol 283, pp 346-7, 15 Jan 1999.
	"Optical And Electrochemical Diffusion-Based Detection Of Analytes In Complex Samples Using Microfabricated Flow Structures (T-SensorSTM)", B. Weigl, R. Darling, P. Yager, J. Kriebel & K. Mayes, Micro- and nanofabn'cated electro-optical mechanical systems for biomedical and environmental applications II- SPIE Vol. 3606, 25-26 Jan 1999.
	"Rapid Sequential Chemical Analysis Using Multiple Fluorescent Reporter Beads", B. Weigl et al., µTTAS 96 Conference Proceedings, 1996.
	"Results Obtained Using A Prototype Microfluidics-Based Hematology Analyzer", E.Altendorf et al., SPIE Biomedical Optics 97, 1997.
	"Silicon-Microfabricated Diffusion-Based Optical Chemical Sensor", B. Weigh & P.
	Yager, Reprint from "Sensors & Actuators" B 38-39, 452-457, 1997.
	"Simultaneous Self-Referencing Analyte Determination In Complex Sample Solutions Using Microfabricated Flow Structures (T-Sensors <sup>TM</sup> )", B. Weigl et al., Proceedings of MicroTAS 98, 81-4, Banff, Canada, 1998.
	"Whole Blood Assays Using Microfluidics-Based T-SensorSTm Technology", B. Weigl, Medical Design Online, <a href="http://news.medicaldesignonline.com/featuresarticles/19990416-5922.html">http://news.medicaldesignonline.com/featuresarticles/19990416-5922.html</a> , 04-1999.
	"Large-Scale Linearization Circuit For Electrostatic Motors" IBM Technical Disclosure Bulletin, US. IBM Corp. New York, Vol. 37, No. 10, October 1, 1994, pages 563-564, XP000475777, ISN: 0018-8689.
	Athavale et al., "Coupled Electrostatics-Structures-Fluidic Simulations of A Bead Mesopump," Proceedings of the International Mechanical Engineers Congress & Exhibition, Nashville, Tennessee, October 1999.
	B. Halg, "On a Nonvolatile Memory Cell Based on Micro-Electro-Mechanics", Proceedings of MEMS CH2832-4/90/0000-0172 IEEE (1990), pages 172-176.
	Bertz, Schubert, Werner, "Silicon Grooves With Sidewall Angles Down to 1° made By Dry Etching", pages 331-339.
	Branebjerg, Gravesen, "A New Electrostatic Actuator Providing Improved Stroke Length and Force." Micro Electro Mechanical Systems '92 (Feb. 4-7, 1992), pages 6-11.
1	Bustgens, Bacher, Menz, Schomburg, "Micropump Manufactured by Thermoplastic Molding" MEMS 1994, pages 18-21.
200	C. Cabuz et al., "Factors Enhancing the Reliability of Touch-Mode Electrostatic Actuators," Sensors

Page 7 of 8



Atty. Docket No.: H26922 (1100.1187101)

Serial No.: 10/612,664

LIST OF PATENTS AND PUBLICATIONS FOR APPLICANT'S INFORMATION DISCLOSURE STATEMENT Applicant: Jay Schwichtenberg et al.

Filing Date:	Group Art:
July 2, 2003	unknown 2859

20	and Actuators 79(2000) pages 245-250.				
	C. Cabuz et al., "The Double Diaphragm Pump," The 14th IEEE International Micro Electro Mechanical Systems conference, MEMS'01, January 21-23, Interlachen, Switzerland.				
	C. Cabuz, et al., "High Reliability Touch-Mode Electrostatic Actuators", Technical Digest of the Solid State Sensor and Actuator Workshop, Hilton Head, S.C., Jun. 8-11, 1998, pages 296-299.				
	C. Cabuz. "Tradeoffs in MEMS Material (Invited Paper) Proceedings of the SPIE, vol. 2881, pages 160-170, Austin, TX., July 1996.				
	Cabuz, Cleopatra, "Electrical Phenomena at he Interface of Rolling-Contact, Electrostatic Actuators," Nanotribology: Critical Assessment and Research Needs, Kluwer Academic Publisher, pages 221-236, Copyright 2003, presented at the Nanotribology Workshop, March 13-15. 2000.				
	Cleo Cabuz, "Dielectric Related Effects in Micromachined Electrostatic Actuators," Annual Report of the IEEE/CEIDP Society, 1999, Annual Meeting, Austin, Texas, October 17-20, 1999.				
	Cleopatra Cabuz et al., "Mesoscopic Sampler Based on 3D Array of Electrostatically Activated Diaphragms", The 10 <sup>th</sup> Int. Conf. On Solid-State Sensors and Actuators, Transducers'99, June 7-12, 1999, Sendai Japan, pg. 1890-1.				
	Eric Alterndorf et al., "Results Obtained Using a Prototype Microfluidics-Based Hematology Analyzer", Department of Bioengineering, University of Washington, Box 352141, Seattle, WA 98195, dated prior to August 2, 2000, pages 73-76.				
	http://www.micronics.net/hfilter.htm, pages 1-3, downloaded June 14, 2000.				
	http://www.micronics.net/mcytometry.htm, pages 1-4, downloaded June 14, 2000.				
	http://www.micronics.net/orcafluidics.htm, pages 1-4, downloaded June 14, 2000.				
	http://www.micronics.net/tsensor.htm, pages 1-4, downloaded June 14, 2000.				
	Jye-Shane Yang et al., "Fluorescent Porous Polymer Films as TNT Chemosensors: Electronic and Structural Effects", J. Am. Chem. Soc., 1998, 120, pages 11864-11873.				
	Jye-Shane Yang et al., "Porous Shape Persistent Fluorescent Polymer Films: An Approach to TNT Sensory Materials", J. Am. Chem. Soc., 1998, 120, pages 5321-5322.				
	Lehman, J. et al., "High-Frequency Modulation Characteristics of Red VCSELs", Electronics Letters, February 13, 1997, vol. 33(4), pages 298-300. Copyright 1997 IEE.				
	Michael S. Freund et al., "A Chemically Diverse Conducting Polymer-Based 'Electronic Nose", Proceedings of the National Academy of Sciences of the United States of America, Vol. 92, No. 7, March 28, 1995, pages 2652-2656.				
	Minami K et al., "Fabrication of Distributed Electrostatic Micro Actuator (DEMA)" Journal of Microelectromechanical Systems, US, IEEE Inc., New York, Vol. 2, No. 3, September 1, 1993, pages 121-127, XP000426532, ISSN: 1057-7157.				
	Porex Technologies, brochure, dated prior to June 2, 2000, 4 pages.				
1	Shapiro, "Practical Flow Cytometry", third edition, 1995, p. 237.				
305	Shikida, Sato, "Characteristics of an Electrostatically-Driven Gas Valve Under High Pressure Conditions, IEEE 1994, pages 235-240."				

#### **FORM PTO-1449** Atty. Docket No.: Serial No.: SEP 0 4 2003 10/612,664 H26922 Page 8 of 8 (1100.1187101) Applicant: Jay Schwichtenberg et al. LIST OF PATENTS AND PUBLICATIONS FOR APPLICANT'S INFORMATION Group Art: Filing Date: DISCLOSURE STATEMENT July 2, 2003 unknown 2859

	Shikida, Sato, Harada, "Fabrication of An S-Shaped Microactuator," Journal of		
202	Microelectromechanical Systems, Vol. 6, No. 1 (March 1997), pages 18-24.		
	Shikida, Sato, Tanaka, Kawamura, Fujisaki, "Electrostatically Driven Gas Valve With High Conductance", Journal of Microelectromechanical Systems, Vol. 3, No. 2 (June 1994), pages 76-80.		
	Srinivasan et al., "Self-Assembled Fluorocarbon Films for Enhanced Stiction Reduction", TRANSDUCERS '97, 1997 International Conference on Solid-State Sensors and Actuators, Chicago, June 16-19, 1997, pages 1399-1402.		
	Strzelecka, E. et al., "Parallel Free-Space Optical Interconnect Based on Arrays of Vertical-Cavity Lasers and Detectors with Monolithic Microlenses", Applied Optics, v. 37(14), May 10, 1998, pages 2811-21. Copyright 1998 Optical Society of America.		
	T. Ohnstein et al., "Micromachined Silicon Microvalve", Proceedings of MEMS, 1990, IEEE Micro Electromechanical Systems, Napa Valley, California, February 11-14, 1990, pp. 95-98.		
	Vandelli, et al., "Development of a MEMS Microvalve array for Fluid Flow Control," Journal of Microelectromechanical Systems, vol. 7, December 4, 1998.		
200	Wagner, Quenzer, Hoerscelmann, Lisec, Juerss, "Bistable Microvalve with Pneumatically Coupled Membranes," 0-7803-2985-6/96, IEEE (1996), pages 384-388.		

EXAMINER:	G. Bradley	Bennett	DATE CONSIDERED:	ZZ NOV	2004

EXAMINER: Initial if citation considered, whether or not citation is in conformance with MPEP 609; draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.